REMARKS

Claims 1, 2, and 4-24 remain pending in the present application. Claims 1, 2, and 14 are amended to further specify that the barrier web continuous fibers have diameters of less than about 1.0 micrometer. Basis for this limitation is found in original claim 3, hereby cancelled. No new matter is added.

Rejection under 35 U.S.C. §102(e)/103(a) over Zucker

Claims 1-4, 7-9, 13, 14, and 16 stand rejected under 35 U.S.C. §102(e)/103(a) as anticipated by or obvious over Zucker (U.S. Published Application No. 2003/0129909). Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

Zucker fails to provide an enabling disclosure of sub-micron fiber formation

Applicants reiterate their comments in traverse of the rejection over Zucker, as presented in their response of 25 July 2005. In short, Zucker suggests the manufacture of nano-denier continuous filaments, without providing an enabling disclosure as how to do so. In regard to sufficiency of a reference for anticipation, the MPEP summarizes:

> "In determining that quantum of prior art disclosure which is necessary to declare an applicant's invention 'not novel' or 'anticipated' within section 102, the stated test is whether a reference contains an 'enabling disclosure'... ." *In re Hoeksema*, 399 F.2d 269, 158 USPQ 596 (CCPA 1968). The disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject matter; mere naming or description of the subject matter is insufficient, if it cannot be produced without undue experimentation. *Elan Pharm., Inc. v. Mayo Found. For Med. Educ. & Research*, 346 F.3d 1051, 1054, 68 USPQ2d 1373, 1376 (Fed. Cir. 2003). **MPEP 2121.01**; emphasis added.

In regard to sufficiency of a reference to support an obviousness rejection, it is well-established law that:

> References relied upon to support a rejection under 35 USC 103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public. An invention is not "possessed" absent some known or obvious way to make it. Hence, the presumption of obviousness based on close structural similarity is

> overcome where the prior art does not disclose or render obvious a method for making the claimed compound. Id. at 1500, 399 F.2d at 274, 158 USPQ at 601. In re Payne, 606 F.2d 303 (CCPA 1979); 203 U.S.P.Q. 245; (Citations omitted; emphasis added);

and

> In order to render a claimed apparatus or method obvious, the prior art must enable one skilled in the art to make and use the apparatus or method. Beckman Instruments, Inc. v. LKB Produkter AB, 892 F.2d 1547, 1551, 13 U.S.P.Q.2D 1301, 1304 (Fed. Cir. 1989).

Zucker fails to disclose any particular method for making "nano-denier" continuous filaments. Instead, Zucker cites Fabbricante et al. (U.S. Patent Nos. 5,679,379 and 6,114,017), Zeldin et al. (U.S. Patent No. 5,225,018) and Gillespie et al. (U.S. Patent No. 5,783,503), as disclosing methods for making nano-denier filaments.

> Suitable nano-denier continuous filament barrier layers can be formed by either direct spinning of nano-denier filaments or by formation of a multi-component filament that is divided into nano-denier filaments prior to deposition on a substrate layer. U.S. Pat. Nos. 5,678,379 and Bi, 6,114,017, both incorporated herein by reference, exemplify direct spinning processes practicable in support of the present invention. Multi-component filament spinning with integrated division into nano-denier filaments can be practiced in accordance with the teachings of U.S. Pat. Nos. 5,225,018 and No. 5,783,503, both incorporated herein by reference. (Zucker, paragraph 0018).

Applicants reiterate their comments in distinction over Fabbricante et al., as previously submitted; i.e. neither Fabbricante et al. reference discloses a method of making barrier webs consisting of continuous fibers having diameters less than one micrometer. As the Examiner points out, Fabbricante et al. disclose an example comprising a mixture of continuous and discontinuous fibers having diameters of 0.5 microns (column 9, Table 4, lines 36-46).

Accordingly, it is clear that the method and apparatus of Fabbricante et al. is not useful to make a nonwoven barrier layer consisting of sub-micron diameter continuous fibers, and therefore does not enable Zucker's suggestion as to a manner of direct spinning his "nano-denier" continuous fibers.

At page 7 of the outstanding Office Action, the Examiner argues that the direct spinning technique of Fabbricante et al. is not the sole source of enablement in Zucker as to making nano-denier continuous filaments, noting that Zucker also suggests splitting multi-component fibers. In this regard, Zucker further cites Zeldin et al. and Gillespie et al. as enablement for making nano-denier filaments (paragraph 0018).

Zeldin et al. discloses a method and apparatus for providing uniformly distributed filaments from a spun filament bundle and spunbonded fabrics obtained therefrom. Zeldin et al. is entirely silent as to fiber diameters obtainable from their process. As such, Zeldin et al. cannot enable Zucker's suggestion to make nano-denier filaments.

Gillespie et al. disclose meltspun multiple component thermoplastic continuous filaments and products made therefrom, and methods therefore (Title). Gillespie et al. disclose that multicomponent thermoplastic continuous filaments can be split into sub-denier and micro-denier filaments of low orientation (Abstract). Gillespie et al. equate "micro-denier" filaments with those produced by melt blowing (col. 2, lines 30-36), well-known in the art to range in diameter from about 2-10 micrometers (see Fabbricante et al. '017, col. 1, lines 59-62). Gillespie et al. suggest the ability to form microfilaments having deniers in the range of from about 0.1 to 0.3 denier per filament (col. 6, lines 25-30), but exemplify only fibers having deniers above 0.40 (Table 1, col. 10). A one denier filament has a diameter of about 19 micrometers (see U.S. Patent No. 5,885,909, col. 6, lines 48-52), so a 0.4 denier filament would have a diameter of about 7.5 micrometers, and a 0.1 denier filament would have a diameter of about 1.9 micrometers. Thus, it is clear that Gillespie et al. fail to disclose any method of making sub-micron diameter filaments, contrary to the suggestion of Zucker.

Examiner's argument as to Zucker's enabling disclosure

Still, the Examiner maintains that Zucker is adequately enabled for making "nano-denier" filaments.

> However, Fabbricante et al. is not used to reject the claims. The rejection is based upon Zucker, which discloses a barrier layer of infinite length fibers having a diameter of less than 500 nm (See paragraph 9). (Outstanding Office Action, page 7).

At paragraph 0009, Zucker states:

> The present invention is directed to a nonwoven compound fabric comprising one or more layers of nano-denier continuous filaments and at least one layer of a strong and durable substrate, wherein said nonwoven compound fabric has an improved barrier performance as measured by the hydrostatic head to barrier layer basis weight ratio. In the present invention, one or more strong and durable substrate layers are formed, each layer comprising continuous thermoplastic filament spunbond. A barrier layer preferentially comprising nano-fibers of infinite length, wherein the average fiber diameter of the nano-fiber is in the range of less than or equal to 1000 nanometers, and preferably less than or equal to 500 nanometers, is applied to at least one substrate layer. Said substrate layer or layers and said nano-fiber layer layers, and optionally one or more secondary barrier materials, are consolidated into a single compound fabric.

This portion of Zucker essentially summarizes the claimed invention (claim 1 of Zucker), which of course, must be described in a manner which would enable the skilled artisan to make and use the invention (35 U.S.C. 112, first paragraph). However, Zucker's description set forth in his paragraph 0009 is insufficient, in and of itself, to place the claimed invention into the possession of the public.

> References relied upon to support a rejection under 35 USC 103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public. An invention is not "possessed" absent some known or obvious way to make it. In re Payne, *Id.* (emphasis added).

Since Zucker fails to disclose an effective way of making his "nano-denier" continuous filaments, either directly or by incorporation by reference, Applicants respectfully submit that Zucker is non-enabling for the purposes of the rejection, and therefore ineffective as prior art.

Withdrawal of the rejection is requested on this basis.

Rejection under 35 U.S.C. §103(a) over Zucker

Claims 12 stands rejected under 35 U.S.C. §103(a) as obvious over Zucker. Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

As stated above, Zucker is fatally defective as it does not adequately enable those skilled in the art to make barrier webs consisting of sub-micron diameter continuous polymeric fibers, and therefore cannot be deemed to make obvious the present claims. Withdrawal of the rejection is requested on this basis.

Rejection under 35 U.S.C. §103(a) over Zucker in view of Fabbricante et al.

Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as obvious over Zucker in view of Fabbricante et al. Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

As clearly set forth above, neither of Zucker or Fabbricante et al. would enable those of skill in the art to make barrier webs consisting of sub-micron diameter continuous polymeric fibers, and therefore cannot be deemed to make obvious the present claims. Withdrawal of the rejection is requested on this basis.

Rejection under 35 U.S.C. §103(a) over Zucker in view of Benson et al.

Claims 10 and 11 stand rejected under 35 U.S.C. §103(a) as obvious over Zucker in view of Benson et al. (U.S. Patent No. 6,746,517). Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

As clearly set forth above, Zucker fails to enable those of skill in the art to make barrier webs consisting of sub-micron diameter continuous polymeric fibers, and therefore, even in combination with Benson et al., cannot be deemed to make obvious the present claims. Withdrawal of the rejection is requested on this basis.

Rejection under 35 U.S.C. §103(a) over Zucker in view of Healey

Claims 23 and 24 stand rejected under 35 U.S.C. §103(a) as obvious over Zucker in view of Healey (U.S. Patent No. 6,554,881). Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

As clearly set forth above, Zucker fails to enable those of skill in the art to make barrier webs consisting of sub-micron diameter continuous polymeric fibers, and therefore, even in combination with Healey, cannot be deemed to make obvious the present claims. Withdrawal of the rejection is requested on this basis.

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,

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